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 TI Hot rolled **steel** sheet manufacturing method for motor vehicle plates - involves **rough** and **finish rolling** of heated **steel**, followed by isothermal or slow **cooling** and then **cooling steel** rolled into coil.
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 PA (KAWI) KAWASAKI STEEL CORP
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 NOVELTY - **Steel** which contains 0.05-0.4 mass% of carbon, 1.0-3.0 mass% of silicon, 0.6-3 mass% of manganese, 0.2-2.0 mass% of chromium and remainder of iron, is heated to 1000-1300 deg. C and then subjected to a **rough rolling** and **finishing rolling** at 780-980 deg. C followed by **cooling** to 620-780 deg. C. Then the sheet is held isothermally for 1-10 sec or slow **cooled** at a **cooling** rate of 20 deg. C/sec. When a **cooling** temperature of 350-500 deg. C is attained the **steel** is rolled in a coil and then **cooled** to 300 deg. C at a **cooling** rate of 10-200 deg. C/hr. DETAILED DESCRIPTION - After rolling up in a coil, a 2-60 minutes isothermal maintenance or a slow **cooling** at a rate of 50 deg. C/hr is performed. Subsequent **cooling** to 300 deg. C is then done. The **steel** obtained has a pro-eutectoid ferrite main phase and a secondary phase consisting of martensite, a needle like ferrite and a retained austenite.
 USE - For manufacturing **steel** plate for motor vehicles.
 ADVANTAGE - The **steel** possesses superior mouldability with impact-proof property, since **steel** contains pro-eutectoid ferrite as its main phase and needle like ferrite martensite and retained austenite as its secondary phase.
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